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one coded residual comprises differences between the
reference frame and the target frame(s).

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The drawings were objected to for not including all of the reference numbers used in the specification. In order to correct this problem, the Applicant is submitting a set of formal drawings that include the omitted reference numerals.

Claims 5, 8, 21, 31, 34, 35 and 46 were amended to overcome the rejection under 35 USC 112, second paragraph, as being indefinite. This included amending the claims to recite "MPEG coding". Since the details of MPEG coding are described in pages 7-8 of the present application, it is respectfully submitted that the claims are now definite and comply fully with 112 requirements.

Claims 1-6, 11-19, 24-26, 40 and 45-46 stand rejected under 35 USC 102 as being anticipated by Ueno et al. Claims 8-10 and 21-23 stand rejected under 35 USC 103 as being unpatentable over Ueno et al. Claims 7 and 20 stand rejected under 35 USC 103 as being unpatentable over Ueno et al. in view of Guetz et al. Claims 27-32, 34-39 and 47 stand rejected under 35 USC 103 as being unpatentable over Ueno et al. in view of Lempel, Claim 33 stands rejected

under 35 USC 103 as being unpatentable over Ueno et al. in view of Lempel, and in further view of Guetz et al. Based on the following, these rejections are respectfully traversed.

In response to the above rejection, it is respectfully submitted that the claims recite features not taught by Ueno et al. In particular such features include "locating, in target frames, one or more blocks of pixels that substantially correspond to the first block of pixels", as recited in claims 1, 14, 27 and 40.

In addressing the above feature in the present rejections, column 15, lines 33-41, of Ueno et al. is being relied on. However, in column 15, lines 33-41, Ueno et al. discloses at the time of detecting a motion vector between the input picture signal and the high resolution decoded signal in the predictor, the amount of computation can be reduced by limiting search range to around that motion vector.

Based on the above disclosure, it is evident that Ueno et al. only discloses searching for a motion vector. Therefore, it is respectfully submitted that the presently recited "locating, in target frames, one or more blocks of pixels that substantially correspond to the first block of pixels" is not anticipated by Ueno et al.

The above-described deficiencies of Ueno et al. are also not addressed by either Lempel or Guetz et al. Thus, the invention of claims 1-40 and 45-47 is neither anticipated nor made Ueno et al. alone or in combination with either Lempel or Guetz et al. Therefore, it is respectfully requested that the above rejection be reconsidered and withdrawn.

Claims 41-43 stand rejected under 35 USC 102 as being anticipated by Yonemitsu et al. Claim 44 stands rejected under 35 USC 103 as being unpatentable over Yonemitsu et al. in view of Song et al. Based on the following, these rejections are respectfully traversed.

In response to the above rejection, it is respectfully submitted that the claims recite features not taught by Yonemitsu et al. In particular such features include "a processor which increases a resolution of a reference frame Of the video based on pixels in the reference frame and based on pixels in at least one other target frame", as recited in claim 40.

In column 7, lines 11-15, Yonemitsu et al. only discloses the output picture of the lower layer is inputted to the up sampling circuit so that it can be converted into a non-interlace picture. Based on this disclosure, it is

evident that Yonemitsu et al. does not disclose include "a processor which increases a resolution of a reference frame Of the video based on pixels in the reference frame and based on pixels in at least one other target frame", as required by the claims. Therefore, it is respectfully submitted that this feature is not anticipated by Yonemitsu et al.

The above-described deficiencies of Yonemitsu et al. are also not addressed by either Song et al. Thus, the invention of claims 41-44 is neither anticipated nor made Yonemitsu et al. alone or in combination with Song et al. Therefore, it is respectfully requested that the above rejection be reconsidered and withdrawn.

The Commissioner is hereby authorized to credit any overpayment or charge any fee (except the issue fee) to Account No. 14-1270.

Respectfully submitted,

By *Russell Gross*
Russell Gross, Reg. 40,007
Attorney
(914) 333-9631

CERTIFICATE OF MAILING

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A P P E N D I X

5. A method according to Claim 4, wherein the differences comprise ~~an MPEG~~ a residual.

8. A method according to Claim 1, wherein the reference frame of video and the N target frames are coded using ~~one of MPEG-1, MPEG-2 and MPEG-4~~ MPEG coding.

18. A method according to Claim 17, wherein the differences comprise ~~an MPEG~~ a residual.

21. Computer-executable process steps according to Claim 14, wherein the reference frame of video and the N target frames are coded using ~~one of MPEG-1, MPEG-2 and MPEG-4~~ MPEG coding.

31. A method according to Claim 30, wherein the differences comprise ~~an MPEG~~ a residual.

34. An apparatus according to Claim 27, wherein the reference frame of video and the N target frames are coded using ~~one of MPEG-1, MPEG-2 and MPEG-4~~ MPEG coding.

45. A method according to Claim 4, wherein, in a case that the reference and target frames of video are coded using MPEG coding, the locating step locates the one or more blocks using motion vectors present in an MPEG coded bitstream for the target frames; and

wherein the coefficients are determined using DCT values of at least one coded residual, where the at least one coded residual comprises differences between the reference frame and the target frame(s).

46. Computer-executable process steps according to Claim 17, wherein, in a case that the reference and target frames of video are coded using MPEG coding, the locating code locates the one or more blocks using motion vectors present in an MPEG coded bitstream for the target frames; and

wherein the coefficients are determined using DCT values of at least one coded residual, where the at least one coded residual comprises differences between the reference frame and the target frame(s).